

Please type a plus sign (+) inside this box → +

PTO/SB/05 (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. 2557-000189/US

First Inventor MIN-HO KIM, et al.

Title DEMODULATOR CIRCUIT FOR DIGITAL TELEVISION AND DEMODULATION METHOD

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Commissioner for Patents
Box Patent Application
P.O. Box 1450
Alexandria, VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 19]
(preferred arrangement set forth below)
 - Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 7]
5. Oath or Declaration [Total Pages 3]
 - a. ☐ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for a continuation/divisional with Box 18 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATIONS PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 C.F.R. §3.73(b) Statement of Power of Attorney (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
15. ☒ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Information Sheet

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No: ____ / ____

Prior application information: Examiner ____

Group / Art Unit: ____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label

30593

or ☐ Correspondence address below

30593

(Insert Customer No. or Attach bar code label here)

Name

Harness, Dickey & Pierce, P.L.C.

Address

P.O. Box 8910

City

Reston

State

VA

Zip Code

20195

Country

United States of America

Telephone

703-668-8000

Fax

703-668-8200

Name (Print/Type)

John A. Castellano

Registration No. (Attorney/Agent)

35,094

Signature

Date

January 23, 2004

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

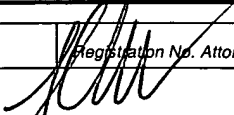
**FEE TRANSMITTAL
for FY 2003**

Patent fees are subject to annual revision.

Complete if Known**TOTAL AMOUNT OF PAYMENT** (\$) 928.00

Application Number	NEW
Filing Date	January 23, 2004
Inventor(s)	MIN-HO KIM, et al.
Examiner Name	UNASSIGNED
Group / Art Unit	UNASSIGNED
Attorney Docket No.	2557-000189/US

METHOD OF PAYMENT (check one)				FEE CALCULATION (continued)																																																																																																																																																																																	
1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: Deposit Account Number: 08-0750 Deposit Account Name: Harness, Dickey & Pierce, P.L.C. <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27				3. ADDITIONAL FEES <table border="1"> <thead> <tr> <th>Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet.</td><td></td></tr> <tr><td>1053</td><td>1053</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>420</td><td>2252</td><td>210</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>950</td><td>2253</td><td>475</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,480</td><td>2254</td><td>740</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>2,010</td><td>2255</td><td>1,005</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>330</td><td>2401</td><td>165</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>330</td><td>2402</td><td>165</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>290</td><td>2403</td><td>145</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,330</td><td>2453</td><td>665</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,330</td><td>2501</td><td>665</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>480</td><td>2502</td><td>240</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>640</td><td>2503</td><td>320</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17 (q)</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>0</td></tr> <tr><td>1809</td><td>770</td><td>2809</td><td>385</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>770</td><td>2810</td><td>385</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>770</td><td>2801</td><td>385</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> </tbody> </table>				Fee Code	Large Entity Fee (\$)	Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.		1053	1053	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	420	2252	210	Extension for reply within second month		1253	950	2253	475	Extension for reply within third month		1254	1,480	2254	740	Extension for reply within fourth month		1255	2,010	2255	1,005	Extension for reply within fifth month		1401	330	2401	165	Notice of Appeal		1402	330	2402	165	Filing a brief in support of an appeal		1403	290	2403	145	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,330	2453	665	Petition to revive - unintentional		1501	1,330	2501	665	Utility issue fee (or reissue)		1502	480	2502	240	Design issue fee		1503	640	2503	320	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)	0	1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))		1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))		1801	770	2801	385	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application	
Fee Code	Large Entity Fee (\$)	Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																
1051	130	2051	65	Surcharge - late filing fee or oath																																																																																																																																																																																	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.																																																																																																																																																																																	
1053	1053	1053	130	Non-English specification																																																																																																																																																																																	
1812	2,520	1812	2,520	For filing a request for reexamination																																																																																																																																																																																	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																																	
1251	110	2251	55	Extension for reply within first month																																																																																																																																																																																	
1252	420	2252	210	Extension for reply within second month																																																																																																																																																																																	
1253	950	2253	475	Extension for reply within third month																																																																																																																																																																																	
1254	1,480	2254	740	Extension for reply within fourth month																																																																																																																																																																																	
1255	2,010	2255	1,005	Extension for reply within fifth month																																																																																																																																																																																	
1401	330	2401	165	Notice of Appeal																																																																																																																																																																																	
1402	330	2402	165	Filing a brief in support of an appeal																																																																																																																																																																																	
1403	290	2403	145	Request for oral hearing																																																																																																																																																																																	
1451	1,510	1451	1,510	Petition to institute a public use proceeding																																																																																																																																																																																	
1452	110	2452	55	Petition to revive - unavoidable																																																																																																																																																																																	
1453	1,330	2453	665	Petition to revive - unintentional																																																																																																																																																																																	
1501	1,330	2501	665	Utility issue fee (or reissue)																																																																																																																																																																																	
1502	480	2502	240	Design issue fee																																																																																																																																																																																	
1503	640	2503	320	Plant issue fee																																																																																																																																																																																	
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																																																	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)																																																																																																																																																																																	
1806	180	1806	180	Submission of Information Disclosure Stmt																																																																																																																																																																																	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	0																																																																																																																																																																																
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))																																																																																																																																																																																	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																																																																																	
1801	770	2801	385	Request for Continued Examination (RCE)																																																																																																																																																																																	
1802	900	1802	900	Request for expedited examination of a design application																																																																																																																																																																																	
2. <input checked="" type="checkbox"/> Payment Enclosed: <input checked="" type="checkbox"/> Check <input type="checkbox"/> Credit card <input type="checkbox"/> Money Order <input type="checkbox"/> Other																																																																																																																																																																																					
FEE CALCULATION 1. BASIC FILING FEE <table border="1"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>1001</td><td>770</td><td>2001</td><td>385</td><td>Utility filing fee</td><td>770</td></tr> <tr><td>1002</td><td>340</td><td>2002</td><td>170</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>530</td><td>2003</td><td>265</td><td>Plant filing fee</td><td></td></tr> <tr><td>1004</td><td>770</td><td>2004</td><td>385</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5">SUBTOTAL (1)</td><td>(\$770)</td></tr> </tbody> </table>				Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	1001	770	2001	385	Utility filing fee	770	1002	340	2002	170	Design filing fee		1003	530	2003	265	Plant filing fee		1004	770	2004	385	Reissue filing fee		1005	160	2005	80	Provisional filing fee		SUBTOTAL (1)					(\$770)																																																																																																																																								
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																
1001	770	2001	385	Utility filing fee	770																																																																																																																																																																																
1002	340	2002	170	Design filing fee																																																																																																																																																																																	
1003	530	2003	265	Plant filing fee																																																																																																																																																																																	
1004	770	2004	385	Reissue filing fee																																																																																																																																																																																	
1005	160	2005	80	Provisional filing fee																																																																																																																																																																																	
SUBTOTAL (1)					(\$770)																																																																																																																																																																																
2. EXTRA CLAIM FEES <table border="1"> <thead> <tr> <th>Total Claims</th> <th>Independent Claims</th> <th>Multiple Dependent</th> <th>Extra Claims</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>-20 **</td> <td></td> <td>4</td> <td>18</td> <td>72</td> </tr> <tr> <td>4</td> <td>-3 **</td> <td></td> <td>1</td> <td>86</td> <td>86</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> </tbody> </table>				Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid	24	-20 **		4	18	72	4	-3 **		1	86	86						0																																																																																																																																																										
Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid																																																																																																																																																																																
24	-20 **		4	18	72																																																																																																																																																																																
4	-3 **		1	86	86																																																																																																																																																																																
					0																																																																																																																																																																																
<table border="1"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>1201</td><td>86</td><td>2201</td><td>43</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>1203</td><td>290</td><td>2203</td><td>145</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>1204</td><td>86</td><td>2204</td><td>43</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr><td colspan="5">SUBTOTAL (2)</td><td>(\$158)</td></tr> </tbody> </table>				Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	1202	18	2202	9	Claims in excess of 20		1201	86	2201	43	Independent claims in excess of 3		1203	290	2203	145	Multiple dependent claim, if not paid		1204	86	2204	43	** Reissue independent claims over original patent		1205	18	2205	9	** Reissue claims in excess of 20 and over original patent		SUBTOTAL (2)					(\$158)																																																																																																																																								
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																
1202	18	2202	9	Claims in excess of 20																																																																																																																																																																																	
1201	86	2201	43	Independent claims in excess of 3																																																																																																																																																																																	
1203	290	2203	145	Multiple dependent claim, if not paid																																																																																																																																																																																	
1204	86	2204	43	** Reissue independent claims over original patent																																																																																																																																																																																	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent																																																																																																																																																																																	
SUBTOTAL (2)					(\$158)																																																																																																																																																																																
**or number previously paid, if greater; For Reissues, see above				Other fee (specify) _____ *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$0)																																																																																																																																																																																	

SUBMITTED BY			Complete (if applicable)		
Name (Print/Type)	John A. Castellano	Registration No. Attorney/Agent)	35,094	Telephone	703-668-8000
Signature			Date	January 23, 2004	

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.